

WHAT IS CLAIMED IS:

1. A method for identifying an object, by specifying an identifier which has been assigned to the object and which has
5 not been indicated on the object itself, comprising:

an irradiating step of irradiating the object with a radiation;

20 a storing step of storing in a storage separate from the object, a correlation between the identifier and for-identification information required for identifying the object;

25 a for-identification information obtaining step of measuring a level of radioactivity of the object, when the object is required to be identified after an irradiation time at which the object was irradiated with the radiation by the execution of the irradiating step; and of obtaining the for-identification information, at least on the basis of the measured level of radioactivity; a measurement time at which the level of radioactivity was measured; and characteristics
of a predetermined decay curve representing how the radioactivity of the object decays as absolute or relative time elapses from the irradiation time; and

a retrieving step of retrieving in the storage the identifier corresponding to the obtained for-identification
information.

2. The method according to claim 1, wherein the

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for-identification information includes the irradiation time,

the for-identification information obtaining step includes a back-calculating step of calculating back the irradiation time, on the basis of an irradiation condition under

5 which the object was irradiated with the radiation by the execution of the irradiating step or a measured value of radioactivity of the object immediately after the irradiation time; the measurement time; the measured level of radioactivity of the object at the measurement time; and the characteristics
10 of the predetermined decay curve, and

the retrieving step includes a step of retrieving in the storage the identifier corresponding to the back-calculated irradiation time.

15 3. The method according to claim 1, wherein the object includes a plurality of objects,

the decay curve includes a plurality of decay curves, each of which is predetermined for each of the plurality of objects, and represents how radioactivity of the each object decays with
20 the absolute time,

the for-identification information includes a plurality sets of information for specifying the plurality of decay curves, respectively,

the for-identification information obtaining step
25 includes a selecting step of selecting one of the plurality of decay curves which one corresponds to a combination of the measurement time; and the measured level of radioactivity of

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one of the plurality of objects at the measurement time, and
the retrieving step includes a step of retrieving in the
storage the identifier corresponding to the selected decay
curve.

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4. The method according to claim 1, wherein the object
includes a plurality of objects, and the irradiating step is
executed to sequentially irradiate the plurality of objects
with the radiation under such a unitary irradiation condition
10 that only one of the plurality of objects is irradiated with
the radiation at the same irradiation time.

5. The method according to claim 1, wherein the object
is a part which is used as a portion of a predetermined product
15 for manufacturing the product.

6. The method according to claim 5, wherein the part is
carried into a plant for manufacture of the product in the plant,
and is carried out from the plant together with the product after
20 completion of the manufacture.

7. The method according to claim 6, wherein the
irradiating step is executed to irradiate the part with the
radiation under such a predetermined irradiation condition that
25 a level of radioactivity of the part does not substantially
exceed a legally allowable one when the part is carried out from
the plant.

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8. A system for identifying an object, by specifying an identifier which has been assigned to the object and which has not been indicated on the object itself, comprising:

5 an irradiating device irradiating the object with a radiation;

a measuring device measuring a level of radioactivity of the object; and

10 a computer associated with a storage, which computer stores in the storage, a correlation between the identifier and for-identification information required for identifying the object, which computer obtains the for-identification information, at least on the basis of the level of radioactivity measured by the measuring device at a measurement time after
15 an irradiation time at which the object was irradiated with the radiation by means of the irradiating device; the measurement time; and characteristics of a predetermined decay curve representing how the radioactivity of the object decays as absolute or relative time elapses from the irradiation time,
20 and which computer retrieves in the storage the identifier corresponding to the obtained for-identification information.

9. The system according to claim 8, wherein the measuring device is formed as that of a handy type and transmits the
25 measured level of radioactivity to the computer by wireless.

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